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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,902	11/03/2003	Frank Eidam	BGEE 2 00025	4386
27885	7590	07/28/2006	EXAMINER	
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			BRITTAIN, JAMES R	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/699,902	Applicant(s) EIDAM, FRANK	
	Examiner James R. Brittain	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006 and 16 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9,11-14 and 16-69 is/are pending in the application.
- 4a) Of the above claim(s) 16-31 and 41-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9,11-14,32-40 and 64-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>21606;5206;61306.</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 16-31 and 41-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention or species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 27, 2005.

This application contains claims 16-31 and 41-63 drawn to an invention nonelected with traverse in the paper received July 27, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-7, 9, 11-14, 32-40 and 64-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 9, 32 and 64 indicate that in a process step that after installation the radially inner zone is permanently plastically deformed. This process step provides no apparent claimed structure and there is no objective criteria set forth to determine from viewing the locking ring before or after installation whether there has been any permanent plastic deformation of the ring. It is unclear if the claim scope is considered to only exist after installation during the process of plastically deforming the ring and not before or after the step of

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plastic deformation. The remaining claims are indefinite because they depend from indefinite claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 7, 9, 12, 14, 32, 34, 36, 64, 66, 68 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615).

Gerwien et al. (figures 1-3) teaches locking ring structure assembled in a groove 16 of a device having a shaft 9 comprising an outer edge zone 2 and a radially inner circumferentially interrupted engagement zone which slants at an angle between 15° and 45°. The difference is that the device has an interrupted outer edge. It would have been obvious to have a closed outer edge in view of Euler (figures 1, 9) teaching the use of a closed outer edge being conventional in those environments when unneeded.

Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claim 32 above, and further in view of Perrow (US 6390925).

Further modification of the device of Gerwien et al. such that the groove has a shoulder and is asymmetric would have been obvious in view of Perrow (figure 9) in which the groove for the locking ring is asymmetric, has a shoulder 60 and is non-rectangular with a tapered surface so as to more securely mount the locking ring.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claim 9 above, and further in view of Draving (US 2275058).

Further modification of the locking ring of Gerwien et al. such that the inner and outer portions are at the same angle would have been obvious in view of Draving (figures 13, 14) that teaches the use of such a configuration to be old and well known.

Claims 5, 35 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claims 1 and 32 above, and further in view of McCarrick et al. (US 5713692).

Further modification of the locking ring of Gerwien et al. such that the slanting angle is between 0° and 20° would have been obvious in view of McCarrick et al. (figures 9, 10) in which the slanting angle of the inner portions 16 is within this range.

Claims 3, 13, 33, 37 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claims 1, 13, 32 and 37 above, and further in view of either Bross (US 2975667) or Turbant et al. (FR 2821906).

Further modification of the locking ring of Gerwien et al. such that the angle of the inner zone is less than the angle of the outer zone would have been obvious in view of either Bross (figures 3, 4) or Turbant et al. (figure 1) who teach that it is desirable to provide such a configuration to a locking ring.

Response to Arguments

Applicant's arguments filed February 16, 2006 have been fully considered but they are not persuasive. Applicant presents arguments with respect to the process step of plastically

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deforming the ring. However, there is no structural limitation that imparts a different configuration to the locking ring as indicated above. Therefore the argument is unpersuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

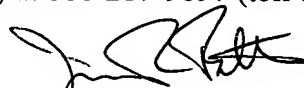
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is (571) 272-7065. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James R. Brittain
Primary Examiner
Art Unit 3677

JRB